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# The Tenebrionidae of California: A Time Sensitive Snapshot Assessment

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## Abstract

Due to a diversity of habitats and its geologic history, the US state of California hosts a spectacular assemblage of darkling beetle species (Coleoptera: Tenebrionidae). In addition to being part of the California Floristic Province, one of 34 global biodiversity hotspots identified by Conservation International, California also has additional areas which are parts of the Great Basin, Mojave, and Sonoran deserts. California is divided into nine floristic regions. Each region is assessed in terms of faunal composition and endemism. A "snapshot" of our present knowledge of the Tenebrionidae indicates that 447 currently recognized species, representing 108 genera, occur in California of which one hundred and ninety are endemic. California is compared to other nearby regions in diversity and endemism. An analysis of currently valid species vs a more realistic species account based on unpublished records of likely synonyms and known species yet to be described in the scientific literature is presented. The California Floristic Region, rather than other more arid parts of California, has the highest number of total and endemic species. Because of their high diversity and endemism, tenebrionids could potentially provide a valuable tool for monitoring the environment for conservation purposes.

## Keywords

California, Floristic Regions, Tenebrionidae, Biodiversity, Hotspots, Conservation

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## Introduction

The state of California is part of the California Floristic Province, one of 34 global biodiversity hotspots identified by Conservation International[1]. Over 50 percent of the world's plant species and 42 percent of all terrestrial vertebrate species are endemic to these 34 biodiversity hotspots, a total area which covers only 2.3 percent of the Earth's land surface. The California Floristic Province includes most of western California and a small section of Baja California and Southwestern Oregon. On Conservation International's California Floristic Province website, although numbers of endemic plants, birds, mammals and amphibians are listed, nothing is mentioned concerning insects[2]. California also includes areas not considered to be part of the California floristic province. These areas contain aspects of the Great Basin, Mojave, and Sonoran deserts.

In 2010 the Essig Museum of Entomology at University of California, Berkeley began CalBug (NSF-DBI: 0956389), a collaborative project among nine California museums with a goal to digitize and geographically reference over one million specimens from target groups and localities[3]. Tenebrionidae was one of the focus groups in Coleoptera. However, to date, few tenebrionids (2%) have been digitized and georeferenced, all at Santa Barbara Museum of Natural History (SBMNH).

In 2005 Mike Caterino, formerly at SBMNH, solicited the author's help in contributing to a web accessible list of "Beetles of California". This was followed by a visit to the SBMNH in 2007 to provide additional identifications of beetles in the collection. The list, last updated in 2009, is posted on http://www.sbnature.org/collections/invert/entom/cbphomepage.php [accessed on December 9, 2013]. An updated list is present here (Fig. 1) that reflects a current "snapshot" of our knowledge of this fauna. It is also available online (http://insectbiodiversitylab.org/CaliforniaDarklingBeetles.html). To account for active research and our growing understanding of the California fauna, the list includes a separate column assessing the potential that each species will be synonymized in future works (see below). Both the current valid species list and a list excluding likely synonymous species, but including known undescribed species, are analyzed based on each species' known occurrence in each of California's nine floristic provinces to assess number of tenebrionid species in each province and their endemicity.

## Materials and methods

Sources of Information other than the SBMNH list above include publications from early workers (LeConte, Horn, Motschulsky, Casey, Blaisdell, and others), modern workers

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1 See http://www.conservation.org/where/priority_areas/hotspots/Pages/hotspots_main.aspx [accessed on December 9, 2013].

2 See http://www.conservation.org/WHERE/PRIORITY_AREAS/HOTSPOTS/NORTH_CENTRAL_AMERICA/CALIFORNIA-FLORISTIC-PROVINCE/Pages/default.aspx [accessed on December 9, 2013].

3 See http://calbug.berkeley.edu/data.html [accessed on December 9, 2013].

(Doyen, Triplehorn, Somerby, Brown, Smith, and others)[4], and modern revisions: Parts of the Coniontini (Doyen 1984), Cnodalonini (Doyen 1973), Amphidorini (Aalbu et al. 2012, Triplehorn and Thomas 2011), Edrotini (Pape et al. 2007), Stenosini (Papp 1981) and Asidini (Brown and Doyen 1991, Smith 2013) as well as complete revisions of the Cryptoglossini (Aalbu 2005) and Anepsiini (Doyen 1987). Other major sources of information include the Species Database of the California Academy of Sciences and information from the author's personal collection (the Rolf L. Aalbu Collection – RLAC), as well as visits to all major beetle collections in California and many others outside of the state. Information for potential future species synonymies and undescribed species come from the authors' research, discussions with other tenebrionid workers, and currently unpublished studies by the authors, Ron Somerby, and Charles Triplehorn.

To account for the many groups in which data has been accumulated but no recent revision has been published, the Tenebrionidae records from California were categorized in the following status groups based on their current and future status: 0), Known new but undescribed species; 1), Currently projected valid species and subspecies[5]; 2) Most likely synonyms, but synonymy not determined without further study; and 3), Known but unpublished synonyms. Published synonyms were omitted. The assessment was then divided into two categories: A.) Described Species Count: All species currently valid in the literature including known synonyms (groups 1, 2, and 3 above). B), Realistic Species Count: (groups 0, 1, and 2 above). Endemism was calculated on a strict basis (species endemic to specific regions which include parts of adjacent areas not in California were not considered).

For the purpose of this study, California is divided into nine floristic regions modified from a map by the Jepson Herbarium[6] (Fig. 1). Four of these are not considered parts of the California Floristic Region. These are: Region 1, The Northern Great Basin Province, including the Warner Mountains and Modoc Plateau; Region 2, The Southern Great Basin Province, including the White and Inyo Mountains and intermountain valleys east of the Sierras Nevada's and White Mountains; Region 3, The Mojave Desert and associated desert mountains; and Region 4, The Sonoran (Colorado) Desert and associated desert mountains.

Regions belonging to the California Floristic Region include: Region 5. The South Coast, including the Transverse and Peninsular Ranges and Channel Islands; Region 6, The Sierra Nevada Mountains; Region 7, The Central Valley; Region 8, The Central Coast, including the San Francisco Bay area and Coast Ranges; and Region 9, The Northern Coast, including the Cascade and Klamath Ranges as well as the Northern Coast Ranges. In these regions we examined species occurrence and regional endemism. Regional endemism was also calculated on a strict basis as described above.

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4 All publications prior to 2002 are listed in Aalbu et al. 2002. Newer pertinent publications are listed in the reference section below.

5 Some of the early described species as Edrotines etc., described by early workers as Casey may potentially be synonyms.

6 Geographic subdivisions of California, Jepson Flora Project (eds.) [2013] Jepson eFlora, http://ucjeps.berkeley.edu/IJM.html [accessed on December 9, 2013].

## Results and discussion

It is important to keep in mind that this study represents a snapshot in time and thus is subject to change as new information becomes available. However, this assessment is also a balance between future synonymies from previous descriptions (Casey and other early workers: *Coniontis*, various genera of edrotines) on one side and new species discoveries, as well as new foreign introductions, on the other. At present, we know of at least eight distinct new species.

A list of all described species is presented in phylogenetic order (Fig. 1). Differences in group numbers and endemics are presented in Table 1. Differences in species count categories (numbers, endemics and percent endemism) are shown in Table 2. It is notable that despite the differences in numbers, both analyses (described vs realistic) indicate a very similar percent endemism. Since this study is intended as a "snapshot" of our current knowledge, species counts and analysis, unless otherwise specified, include only groups 0, 1, and 2 (Realistic Species Count). This tenebrionid inventory of California thus includes 34 tribes, 118 genera and subgenera, 447 species and subspecies (including known new species). Of these, 190 are endemic to California. The present SBMNH web list includes 471 species from California. Of these, 10 are collection data errors. These included *Argoporis alutacea* Casey; *Asidopsis consentanea* Casey; *Asidopsis planata* (Horn); *Cryptoglossa variolosa* Horn; *Eleodes alticola* Blaisdell; *Eleodes subnitens* LeConte; *Neatus tenebrioides* Beauvois; *Platydema micans* Zimmerman; and *Stenomorpha obovatus* (LeConte) none of which are known to occur in California. Others are known but unpublished synonymies (status group 3).

The fauna is composed of the following subfamilies in descending species number: Pimeliinae (204), Tenebrioninae (168), Alleculinae (33), Diaperinae (23), Stenochiini (11), Lagriinae (7), and Phrenapatinae (1). California is clearly a center of diversity for the family Tenebrionidae, representing 38% of all U.S. species. The most abundant tribes and genera in terms of species numbers are: Amphidorini (73 species), Edrotini (71 species), Coniontini (53 species), Alleculini (33 species), Opatrini (26 species), Asidini (25 species), and Helopini (21 species); and genera such as *Eleodes* (64 species), *Stenomorpha* (19 species), *Coniontis* (38 species), and *Metoponium* and *Helops* each with 21 species. A number of tribes such as Amphidorini, Coniontini, and Nyctoporini, and genera such as *Eleodes*, *Coelocnemis*, *Nyctoporis*, *Asbolus*, *Coniontis*, and *Alaudes* also exhibit their greatest diversity in genera/species in California.

Compared to other known nearby geographical regions, California also has a high species per area diversity (1.05 per 1000 square miles) which is higher than the U.S. as a whole[7] (.12) or even Mexico[7] (.68), but not Baja California[7] which has a species diversity of 5.47 (see Table 3). California shares species with the following adjoining areas in descending order: 1. Southwest U.S.: (including Arizona, 101, Nevada, 76; New Mexico, 23; and Utah, 42). 2. Mexico (mainland 32, Baja California, 68) and 3. Northwest U.S. (including Oregon, 56; Washington, 33; and Idaho, 32. A number of

[7] Numbers probably 5–8 years old.

**Table 1.** Status Groups and Endemicity. Group 0: Known new but undescribed species; Group 1: currently projected valid species and subspecies; Group 2: most likely synonyms, but synonymy not determined without further study; and Group 3: known but unpublished synonyms.

| Status group | Non endemic species | Endemic species | Total |
|---|---|---|---|
| 0 | 2 | 8 | 10 |
| 1 | 249 | 155 | 404 |
| 2 | 6 | 27 | 33 |
| 3 | 22 | 17 | 39 |
| | 279 | 207 | 486 |

**Table 2.** California Species, Described vs Realistic. Species counts for the state and % endemicity based on current valid species (A) and a realistic estimation of actual species counts (B).

| Category | Status groups | Species | Endemics | Total | % Endemic |
|---|---|---|---|---|---|
| A: Described | 1, 2 & 3 | 277 | 199 | 476 | 41.81% |
| B: Realistic | 0, 1, & 2 | 257 | 190 | 447 | 42.51% |

**Table 3.** Comparison of currently valid species/endemics per area for various regions.

| Region | Number of species | Number of endemics | % Endemism | Area (km$^2$) | Species diversity per 1000 km$^2$ |
|---|---|---|---|---|---|
| California* | 447** | 190 | 43% | 423970 | 1.05 |
| USA*** | 1184 | ? | >60% | 9827000 | 0.12 |
| Mexico*** | 1340 | 723 | 54% | 1973000 | 0.68 |
| Baja California*** | 404 | 225 | 56% | 73909 | 5.47 |

* Bordered by 3 states and Baja California.

** 34% of all U.S. species.

*** numbers probably 5–8 years old.

species are known only from the type and have undetermined California localities (16). Twenty species are cosmopolitan pests. See Fig. 1 for additional locality information.

The distribution of California tenebrionids can be divided into six patterns: 1), Widespread species, 2), Restricted but not especially hard to collect species (Caves, single canyons (*Eschatomoxys andrewsi* Aalbu & Thomas, *Eleodes* (*Caverneleodes*) *microps* Aalbu et al.), 3), Restricted but very difficult to collect species (*Eleodimorpha*, *Oxygonodera*), 4), Historically abundant but now difficult to collect species (*Eleodes* (*Melaneleodes*) *quadricollis* Eschscholtz), 5) Introduced species composed of standard stored product pests as well as other introductions not associated with stored products (*Opatroides punctulatus* Brullé and *Gonocephalum* sp.) and 6) species only known form the type material with specific locality unknown. California also has some unusual darkling beetle occurrences and absences compared to the rest of North America. One is the presence of two species from the Asian tribe Laenini, which is otherwise absent on the continent. Another is the absence of the genus *Strongylium*, a species-rich genus found worldwide including in Arizona (2 species) and most of the rest of the United States.

## Regional analysis

For the purpose of this study, California was into 9 floristic regions (Fig. 2) to examine species occurrence and regional endemism. Regional endemism was also calculated on a strict basis as mentioned above. A list of all regional endemics is presented as well as total species numbers for the region and percent endemism (Fig. 3). These areas are ranked in Table 4. Adding the above data suggests that over 62% (62.11) of the endemic species in California are regional endemics while 43% (42.60) of all tenebrionids are endemic in terms of being regional endemics or multiple region endemics.

One may note that, somewhat surprisingly, subregions within the California Floristic Region have more regional endemic species (87) as well as California endemic species (124) despite the common association of tenebrionids with desert habitats, where they are always abundant (see Table 5). On this table, "all endemics" in the "unknown…." region refer to species where the type locality is simply listed as "California". This "snapshot" assessment emphasizes how much remains to be done in this area, especially in revising tribes or genera which have not been looked at since their description, as well as rediscovering species of "unknown" California localities. Additional new species, as well as new introductions, will undoubtedly be discovered as well. It is hoped that this type of assessment can be useful in environment monitoring and conservation studies.

**Table 4.** Comparison of regional endemics and all endemics for California.

| Region | Endemic species | All species | % Endemic | % of all California Endemics |
|---|---|---|---|---|
| 5. South Coast & Islands | 42 | 171 | 24.56% | 35.59% |
| 8. Central Coast & Bay | 20 | 110 | 18.18% | 16.95% |
| 6. Sierra Nevada | 16 | 100 | 16.00% | 13.56% |
| 4. Sonoran Desert | 13 | 113 | 11.50% | 11.02% |
| 3. Mojave Desert | 12 | 112 | 10.71% | 10.17% |
| 8. Central Valley | 5 | 76 | 6.58% | 4.24% |
| 2. South Great Basin | 5 | 55 | 9.09% | 4.24% |
| 9. North Coast | 4 | 73 | 5.48% | 3.39% |
| 1: North Great Basin | 1 | 29 | 3.45% | 0.85% |

**Table 5.** Comparison of species endemicity for California Floristic affinities.

| Floristic Region | All Endemics | Non Endemic | All Species |
|---|---|---|---|
| Desert Areas | 37 | 94 | 131 |
| California Floristic Province | 124 | 81 | 205 |
| Both Areas | 16 | 60 | 76 |
| Unknown California locality, cosmopolitan or introduction | 13 | 22 | 35 |

# Figures

## California Tenebrionidae (January 2014)

| # | Endemic CA | Status group | Species | Distribution |
|---|---|---|---|---|
| **Pimeliinae Cnemeplatiini** | | | | |
| 1 | ☑ | 1 | Alaudes alternata Fall, 1928 | 5 |
| 2 | ☐ | 3 | Alaudes fallax Fall, 1928 | 5 |
| 3 | ☑ | 0 | Alaudes n.sp. Colorado Desert | 3 4 5 |
| 4 | ☑ | 0 | Alaudes n.sp. Fresno | 5 7 |
| 5 | ☑ | 0 | Alaudes n.sp. Mojave | 2 3 |
| 6 | ☐ | 1 | Alaudes setigera Blaisdell, 1919 | 5 6 7 8 BC |
| 7 | ☐ | 1 | Alaudes singularis Horn, 1870 | 2 3 4 5 6 8 NV AZ ID |
| 8 | ☐ | 3 | Alaudes testacea Blaisdell, 1919 | 8 |
| 9 | ☑ | 0 | Lepidocnemeplatia n.sp. | 4 |
| 10 | ☐ | 1 | Lepidocnemeplatia sericea (Horn), 1870 | 6 7 9 5 8 AZ OR ID ME NV UT + |
| **Pimeliinae Stenosini** | | | | |
| 11 | ☑ | 1 | Araeoschizus andrewsi Papp, 1981 | 4 |
| 12 | ☐ | 1 | Araeoschizus armatus Horn, 1870 | 3 2 NV |
| 13 | ☑ | 1 | Araeoschizus costipennis LeConte, 1851 | 5 4 |
| 14 | ☑ | 1 | Araeoschizus doyeni Papp, 1981 | 5 |
| 15 | ☑ | 1 | Araeoschizus exiguus Casey, 1907 | 5 |
| 16 | ☑ | 1 | Araeoschizus hardyi Papp, 1981 | 4 |
| 17 | ☑ | 1 | Araeoschizus hystrix Papp, 1981 | 4 |
| 18 | ☑ | 1 | Araeoschizus kaszabi Papp, 1981 | 5 3 |
| 19 | ☑ | 1 | Araeoschizus lariversi Papp, 1981 | 3 |
| 20 | ☑ | 1 | Araeoschizus simulans Casey, 1907 | U type only |
| 21 | ☑ | 1 | Araeoschizus sulcicollis disjunctus Papp, 1981 | 8 |
| 22 | ☐ | 1 | Araeoschizus sulcicollis sulcicollis Horn, 1870 | 3 NV |
| 23 | ☑ | 1 | Typhleusechus chemehuevii Aalbu & Andrews, 1985 | 3 |
| 24 | ☑ | 1 | Typhleusechus singularis Linell, 1897 | 5 7 8 |
| **Pimeliinae Cryptoglossini** | | | | |
| 25 | ☐ | 1 | Asbolus laevis LeConte, 1851 | 4 BC AZ |
| 26 | ☐ | 1 | Asbolus mexicanus angularis (Horn), 1894 | 4 BC AZ |
| 27 | ☑ | 1 | Asbolus papillosus (Triplehorn), 1964 | 3 4 |
| 28 | ☐ | 1 | Asbolus verrucosus LeConte, 1851 | 7 8 3 4 5 2 AZ NV ME |
| 29 | ☐ | 1 | Cryptoglossa muricata (LeConte), 1851 | 7 5 3 4 AZ NV ME |
| 30 | ☐ | 1 | Cryptoglossa spiculifera (LeConte), 1861 | 4 ME |
| 31 | ☐ | 1 | Schizillus laticeps Horn, 1874 | 2 3 4 5 7 BC |
| 32 | ☐ | 1 | Schizillus nunenmacheri Blaisdell, 1921 | 2 3 NV AZ UT |
| **Pimeliinae Nyctoporini** | | | | |
| 33 | ☐ | 1 | Nyctoporis aequicollis Eschscholtz,1831 | 5 6 7 9 8 NV |
| 34 | ☐ | 1 | Nyctoporis carinatus LeConte, 1851 | 6 9 8 7 5 BC |
| 35 | ☑ | 1 | Nyctoporis cristata Eschscholtz,1831 | 6 7 8 9 |
| 36 | ☐ | 3 | Nyctoporis maura Casey, 1907 | 6 |
| 37 | ☐ | 3 | Nyctoporis pullata Casey, 1907 | 9 |
| 38 | ☑ | 1 | Nyctoporis sponsa Casey, 1907 | 9 7 6 |
| 39 | ☐ | 3 | Nyctoporis tetrica Casey, 1907 | 7 |
| 40 | ☑ | 1 | Nyctoporis vandykei Blaisdell, 1931 | 6 7 5 8 |
| **Pimeliinae Asidini** | | | | |
| 41 | ☐ | 1 | Microschatia championi Horn, 1893 | 4 BC |
| 42 | ☐ | 1 | Microschatia inaequalis LeConte, 1851 | 5 BC |
| 43 | ☐ | 1 | Philolithus actuosus (Horn) 1870 | 3 4 AZ NV |
| 44 | ☐ | 1 | Philolithus carinatus LeConte, 1851 | 3 AZ |
| 45 | ☑ | 2 | Philolithus jaegeri (Papp), 1961 | 3 |
| 46 | ☑ | 1 | Philolithus opimus Casey, 1912 | 3 |
| 47 | ☐ | 3 | Philolithus porcatus (Papp), 1961 | 3 |
| 48 | ☐ | 3 | Philolithus rugosus (Papp), 1961 | 3 |
| 49 | ☐ | 1 | Stenomorpha (Asidina) confluens (LeConte), 1851 | 3 AZ |
| 50 | ☐ | 1 | Stenomorpha (Asidina) parallela (LeConte), 1851 | 3 4 AZ |
| 51 | ☐ | 1 | Stenomorpha (Asidina) semilaevis (Horn), 1870 | 3 4 NV AZ ME |
| 52 | ☐ | 1 | Stenomorpha (Asidina) wickami (Horn), 1894 | 4 AZ |
| 53 | ☑ | 1 | Stenomorpha (Pycnomorpha) angulata (LeConte), 1851 | 5 8 |
| 54 | ☐ | 1 | Stenomorpha (Pycnomorpha) californica (Motschulsky), 1870 | 5 BC |
| 55 | ☐ | 1 | Stenomorpha (Pycnomorpha) cressoni (Blaisdell), 1933 | 4 AZ |
| 56 | ☐ | 1 | Stenomorpha (Pycnomorpha) gibicollis (LeConte), 1851 | 5 BC |
| 57 | ☑ | 3 | Stenomorpha (Stenomorpha) amplicollis (Casey), 1912 | 6 7 8 |
| 58 | ☑ | 1 | Stenomorpha (Stenomorpha) captiosa (Horn), 1870 | 6 7 8 |
| 59 | ☑ | 3 | Stenomorpha (Stenomorpha) compressa (Horn), 1870 | 7 |
| 60 | ☑ | 3 | Stenomorpha (Stenomorpha) crassa (Casey), 1912 | 6 7 8 |
| 61 | ☑ | 3 | Stenomorpha (Stenomorpha) deceptor (Casey), 1912 | 6 7 8 |
| 62 | ☑ | 3 | Stenomorpha (Stenomorpha) evanescens (Casey), 1912 | 2 3 4 9 7 |
| 63 | ☑ | 3 | Stenomorpha (Stenomorpha) gravidipes (Casey), 1912 | 6 7 8 |
| 64 | ☑ | 3 | Stenomorpha (Stenomorpha) integer (Casey), 1912 | 6 7 8 |
| 65 | ☑ | 3 | Stenomorpha (Stenomorpha) lecontei (Horn), 1866 | 2 3 4 9 7 |
| 66 | ☑ | 3 | Stenomorpha (Stenomorpha) lecontella Blaisdell, 1936 | 2 3 4 9 7 |
| 67 | ☐ | 1 | Stenomorpha (Stenomorpha) marginata (LeConte), 1851 | 3 AZ NM |
| 68 | ☑ | 3 | Stenomorpha (Stenomorpha) maritima (Casey), 1912 | 6 7 8 |
| 69 | ☑ | 1 | Stenomorpha (Stenomorpha) mckittricki (Pierce), 1944 | 7 |
| 70 | ☑ | 3 | Stenomorpha (Stenomorpha) neutralis (Casey), 1912 | 2 3 4 9 7 |
| 71 | ☑ | 3 | Stenomorpha (Stenomorpha) speculata Blaisdell, 1936 | 2 3 4 9 7 |
| 72 | ☑ | 3 | Stenomorpha (Stenomorpha) spurcans (Casey), 1912 | 2 3 4 9 7 |
| 73 | ☑ | 3 | Stenomorpha (Stenomorpha) subelegans (Casey), 1912 | 6 7 8 |
| 74 | ☑ | 3 | Stenomorpha (Stenomorpha) tularensis (Casey), 1912 | 6 7 8 |
| 75 | ☐ | 3 | Stenomorpha (Stethasida) adumbrata Casey, 1912 | 5 BC AZ |
| 76 | ☐ | 3 | Stenomorpha (Stethasida) angustula (Casey), 1890 | 5 BC |
| 77 | ☐ | 3 | Stenomorpha (Stethasida) brevipes Casey, 1912 | 5 BC AZ |
| 78 | ☐ | 3 | Stenomorpha (Stethasida) convergens Casey, 1912 | 5 BC AZ |
| 79 | ☐ | 3 | Stenomorpha (Stethasida) discreta Casey, 1912 | 5 BC AZ |
| 80 | ☑ | 3 | Stenomorpha (Stethasida) laevigatus (Papp), 1961 | 5 |
| 81 | ☐ | 3 | Stenomorpha (Stethasida) longula Casey, 1912 | 5 BC AZ |
| 82 | ☐ | 1 | Stenomorpha (Stethasida) muricatula (LeConte), 1851 | 5 BC |
| 83 | ☐ | 1 | Stenomorpha (Stethasida) obsoleta (LeConte), 1851 | 5 BC AZ |
| 84 | ☐ | 3 | Stenomorpha (Stethasida) pertinax Casey, 1912 | 5 BC |
| 85 | ☐ | 3 | Stenomorpha (Stethasida) socors Casey, 1912 | 5 BC |
| 86 | ☐ | 3 | Stenomorpha (Stethasida) stricta Casey, 1912 | 5 BC |
| 87 | ☐ | 3 | Stenomorpha (Stethasida) tarsalis Casey, 1912 | 5 BC AZ |
| 88 | ☐ | 3 | Stenomorpha (Stethasida) tenax Casey, 1912 | 5 BC |
| 89 | ☐ | 3 | Stenomorpha (Stethasida) torpida Casey, 1912 | 5 BC AZ |
| 90 | ☐ | 1 | Stenomorpha (Stethasida) unica Casey, 1912 | 5 BC AZ |
| 91 | ☐ | 3 | Stenomorpha (Stethasida) vergrandis Casey, 1912 | 5 BC |
| 92 | ☐ | 1 | Stenomorpha (Trichiasida) acerba (Horn ), 1878 | 3 4 AZ UT |
| 93 | ☑ | 1 | Stenomorpha (Trichiasida) hirsuta (LeConte), 1851 | 4 |
| 94 | ☐ | 1 | Stenomorpha (Trichiasida) hispidula (LeConte), 1851 | 3 4 AZ UT |
| 95 | ☐ | 1 | Stenomorpha (Trichiasida) impetrata (Horn), 1894 | 4 AZ |
| 96 | ☑ | 3 | Stenomorpha (Trichiasida) lineatopilosa Casey, 1912 | 4 |
| 97 | ☑ | 1 | Stenomorpha (Trichiasida) luctata (Horn), 1870 | 5 |
| **Pimeliinae Coniontini** | | | | |
| 98 | ☐ | 1 | Coelus ciliatus Eschscholtz, 1829 | 5 8 9 OR WA CA |
| 99 | ☐ | 1 | Coelus globosus LeConte, 1851 | 5 8 BC |
| 100 | ☑ | 1 | Coelus gracilis Blaisdell, 1939 | 7 |
| 101 | ☑ | 1 | Coelus pacificus Fall, 1897 | 5 |
| 102 | ☑ | 1 | Coniontis abdominalis LeConte, 1859 | 5 8 |
| 103 | ☑ | 1 | Coniontis affinis LeConte, 1851 | 8 9 6 |
| 104 | ☐ | 1 | Coniontis blaisdelli Casey, 1908 | 6 7 8 9 AZ |

**Figure 1.** Checklist of the California Tenebrionidae species with distributions and likelihood for future synonymy. Distribution numbers refer to California regions (Fig. 2) and the following: **ME** (Mexico) **BC** (Baja California) **NV** (Nevada) **AZ** (Arizona) **ID** (Idaho) **UT** (Utah) **NM** (New Mexico) **OR** (Oregon) **WA** (Washington) **CA** (Canada) **U** (unknown California distribution) **C** (refers to cosmopolitan pest), ASIA **SA** (South America), and **OW** (Old World).

## California Tenebrionidae (January 2014)

| # | Endemic CA | Status group | Species | Distribution |
|---|---|---|---|---|
| 105 | ☐ | 1 | Coniontis callida Casey, 1908 | 6 9 CA WA OR NV |
| 106 | ☑ | 2 | Coniontis catalinae Casey, 1908 | 5 |
| 107 | ☑ | 2 | Coniontis costulata Casey, 1908 | 8 |
| 108 | ☑ | 1 | Coniontis elliptica Casey, 1884 | 4 5 6 7 |
| 109 | ☑ | 1 | Coniontis elongata Casey, 1890 | 4 5 6 7 8 9 1 |
| 110 | ☑ | 1 | Coniontis eschscholtzi Mannerheim, 1840 | U |
| 111 | ☐ | 1 | Coniontis extricata Casey, 1908 | 5 8 9 OR |
| 112 | ☑ | 1 | Coniontis farallonica Casey, 1895 | 8 |
| 113 | ☑ | 1 | Coniontis genitiva Casey, 1890 | 9 |
| 114 | ☑ | 1 | Coniontis globulina Casey, 1895 | 5 |
| 115 | ☑ | 1 | Coniontis hoppingi Blaisdell, 1918 | 6 |
| 116 | ☑ | 1 | Coniontis integer Casey, 1908 | 5 7 |
| 117 | ☑ | 1 | Coniontis lamentabilis Blaisdell, 1924 | 5 8 7 |
| 118 | ☐ | 1 | Coniontis lassenica Casey, 1908 | 9 1 5 NV ID |
| 119 | ☑ | 1 | Coniontis lata LeConte, 1866 | 8 |
| 120 | ☐ | 1 | Coniontis microsticta Casey, 1908 | 8 ID |
| 121 | ☑ | 2 | Coniontis musculus Blaisdell, 1918 | U |
| 122 | ☐ | 1 | Coniontis nemoralis Eschscholtz, 1840 | 8 5 6 7 OR |
| 123 | ☐ | 1 | Coniontis obesa LeConte, 1851 | 1 2 5 6 9 |
| 124 | ☐ | 1 | Coniontis opaca Horn, 1870 | 2 NV WA |
| 125 | ☐ | 1 | Coniontis ovalis LeConte, 1851 | 1 2 6 7 9 AZ CA CO ID NV OR WA UT |
| 126 | ☑ | 1 | Coniontis pallidicornis Casey, 1890 | 5 |
| 127 | ☑ | 1 | Coniontis parallela Casey, 1890 | U |
| 128 | ☐ | 1 | Coniontis parviceps Casey, 1890 | 5 8 7 BC |
| 129 | ☑ | 1 | Coniontis pectoralis Casey, 1908 | U |
| 130 | ☑ | 1 | Coniontis puncticollis LeConte, 1851 | 5 6 7 8 9 |
| 131 | ☑ | 1 | Coniontis remnans Pierce, 1945 | 5 |
| 132 | ☑ | 1 | Coniontis robusta Horn, 1870 | 5 6 7 8 |
| 133 | ☑ | 1 | Coniontis sanfordi Blaisdell, 1895 | 6 8 9 |
| 134 | ☑ | 1 | Coniontis santarosae Blaisdell, 1921 | 5 |
| 135 | ☐ | 1 | Coniontis setosa Casey, 1890 | 6 OR WA CA ID UT |
| 136 | ☐ | 1 | Coniontis subpubescens LeConte, 1851 | 8 3 5 6 9 OR BC |
| 137 | ☑ | 1 | Coniontis timida Casey, 1908 | 8 |
| 138 | ☑ | 1 | Coniontis vandykei Blaisdell, 1921 | 5 |
| 139 | ☑ | 1 | Coniontis viatica Eschscholtz, 1929 | 8 |
| 140 | ☐ | 1 | Eusattus costatus Horn, 1870 | 5 BC |
| 141 | ☐ | 1 | Eusattus difficilis LeConte, 1851 | 3 4 5 7 ME AZ NV |
| 142 | ☐ | 1 | Eusattus dilatatus LeConte, 1851 | 4 3 AZ ME |
| 143 | ☐ | 1 | Eusattus dubius arizonensis Doyen, 1984 | 3 4 AZ NV |
| 144 | ☐ | 1 | Eusattus dubius dubius LeConte, 1851 | 3 4 2 NV AZ UT |
| 145 | ☐ | 1 | Eusattus muricatus muricatus LeConte, 1851 | 1 2 3 4 9 5 AZ NM TX CO UT NV ID OR WA |
| 146 | ☐ | 1 | Eusattus phreatophilus Doyen, 1984 | 3 2 NV |
| 147 | ☑ | 1 | Eusattus politus Horn, 1883 | 5 |
| 148 | ☐ | 1 | Eusattus productus LeConte, 1858 | 4 ME |
| 149 | ☐ | 1 | Eusattus reticulatus (Say), 1824 | 4 AZ |
| 150 | ☑ | 1 | Eusattus robustus LeConte,1866 | 5 |

### Pimeliinae Edrotini

| # | Endemic CA | Status group | Species | Distribution |
|---|---|---|---|---|
| 151 | ☑ | 1 | Auchmobius angelicus Blaisdell. 1934 | 5 |
| 152 | ☑ | 1 | Auchmobius parvicollis Blaisdell. 1934 | 8 |
| 153 | ☑ | 1 | Auchmobius picipes Blaisdell. 1934 | 8 |
| 154 | ☑ | 1 | Auchmobius sanfordi Blaisdell. 1934 | 5 |
| 155 | ☑ | 1 | Auchmobius slevini Blaisdell. 1934 | 8 |
| 156 | ☑ | 1 | Auchmobius subboreus Blaisdell. 1934 | 8 |
| 157 | ☑ | 1 | Auchmobius sublaevis LeConte, 1851 | 2 |
| 158 | ☐ | 1 | Chilometopon abnorme (Horn), 1870 | 3 4 AZ NV ME |
| 159 | ☐ | 1 | Chilometopon brachystomum Doyen, 1982 | 3 4 NV BC |
| 160 | ☐ | 1 | Chilometopon helopoides Horn, 1874 | 2 3 4 AZ ID NV NM UT BC |
| 161 | ☑ | 1 | Chilometopon microps MacLachlan & Olson, 1990 | 3 4 |
| 162 | ☐ | 1 | Chilometopon pallidum Casey, 1890 | 3 4 AZ NV NM TX ME BC |
| 163 | ☐ | 1 | Cryptadius inflatus LeConte, 1851 | 5 BC |
| 164 | ☐ | 1 | Edrotes arens La Rivers, 1947 | 5 AZ |
| 165 | ☐ | 1 | Edrotes ventricosus LeConte, 1851 | 3 4 5 AC BC ME ID NV |
| 166 | ☑ | 1 | Eurymetopon ochraceum Eschscholtz,1831 | U type only |
| 167 | ☐ | 1 | Eurymetopon rufipes Eschscholtz, 1831 | U type only |
| 168 | ☑ | 1 | Hylocrinus blaisdelli Casey, 1890 | 7 6 |
| 169 | ☐ | 1 | Hylocrinus depressulus Casey, 1907 | U |
| 170 | ☑ | 1 | Hylocrinus filitarsis Casey, 1907 | 5 4 8 |
| 171 | ☐ | 1 | Hylocrinus longulus LeConte, 1851 | 5 6 3 5 8 AZ |
| 172 | ☐ | 1 | Hylocrinus oblongulus Casey, 1907 | 4 BC |
| 173 | ☑ | 1 | Hylocrinus piceus Casey, 1890 | 5 |
| 174 | ☐ | 2 | Melanastus aequicollis Casey,1907 | 9 NV |
| 175 | ☑ | 1 | Melanastus ater (LeConte), 1851 | 9 8 |
| 176 | ☐ | 2 | Melanastus crassicornis (Casey), 1907 | 9 OR |
| 177 | ☑ | 2 | Melanastus exoletus Casey,1907 | 5 |
| 178 | ☑ | 2 | Melanastus lucidulus Casey,1907 | 8 |
| 179 | ☐ | 2 | Melanastus moestus Casey,1907 | 8 UT |
| 180 | ☐ | 1 | Melanastus obesus (LeConte), 1851 | 5 8 7 BC |
| 181 | ☑ | 1 | Melanastus obtusus (LeConte), 1866 | 5 8 7 |
| 182 | ☑ | 2 | Melanastus otiosus Casey,1907 | 8 |
| 183 | ☑ | 2 | Melanastus sterilis Casey,1907 | 3 |
| 184 | ☑ | 2 | Melanastus thoracicus (Casey), 1907 | 5 |
| 185 | ☑ | 1 | Melanastus vergrandis Casey,1907 | 6 |
| 186 | ☐ | 1 | Metoponium abnorme LeConte, 1851 | 4 ME |
| 187 | ☐ | 1 | Metoponium bicolor Horn, 1870 | 7 3 AZ |
| 188 | ☑ | 2 | Metoponium concors Casey,1907 | 3 |
| 189 | ☐ | 2 | Metoponium convexicolle LeConte, 1851 | 7 5 3 AZ |
| 190 | ☑ | 2 | Metoponium cylindricum Casey, 1890 | 3 |
| 191 | ☑ | 2 | Metoponium dubium Casey, 1884 | 4 |
| 192 | ☑ | 2 | Metoponium edax Casey,1907 | 5 |
| 193 | ☑ | 2 | Metoponium egregium Casey,1907 | 4 |
| 194 | ☑ | 2 | Metoponium extensum Casey,1907 | U |
| 195 | ☑ | 2 | Metoponium faustum Casey,1907 | 3 4 |
| 196 | ☐ | 2 | Metoponium fusculum Casey, 1890 | 4 AZ |
| 197 | ☑ | 2 | Metoponium gravidum Casey,1907 | 3 |
| 198 | ☑ | 2 | Metoponium gulosum Casey,1907 | 7 |
| 199 | ☐ | 2 | Metoponium hebes Casey,1907 | 4 AZ |
| 200 | ☑ | 2 | Metoponium insulare Casey,1907 | 5 |
| 201 | ☑ | 2 | Metoponium integer Casey,1907 | 4 |
| 202 | ☑ | 2 | Metoponium molestum Casey,1907 | 4 |
| 203 | ☑ | 2 | Metoponium opacipenne Casey,1907 | 3 4 |
| 204 | ☑ | 2 | Metoponium probatum Casey,1907 | 5 |
| 205 | ☑ | 2 | Metoponium tersum Casey,1907 | 5 |
| 206 | ☑ | 2 | Metoponium testaceum Casey,1907 | 3 |
| 207 | ☐ | 1 | Micromes maritimus (Casey), 1891 | 5 BC |
| 208 | ☐ | 1 | Micromes ovipennis (Horn), 1870 | 5 BC |
| 209 | ☑ | 0 | Oxygonodera n.sp. | 2 |
| 210 | ☑ | 2 | Stibia blairi Blaisdell, 1936 | U type only (BMNH) |
| 211 | ☐ | 1 | Stibia imperialis Blaisdell, 1936 | 4 BC |
| 212 | ☐ | 1 | Stibia puncticollis Horn, 1870 | 5 BC |
| 213 | ☐ | 3 | Stibia tanneri Blaisdell, 1936 | 6 |
| 214 | ☑ | 1 | Telabis fidelis Casey, 1907 | 4 |

**Figure 1.** Continue.

## California Tenebrionidae (January 2014)

| # | Endemic CA | Status group | Species | Distribution |
|---|---|---|---|---|
| 215 | ☐ | 1 | Telabis incisa Casey, 1907 | 4 NV |
| 216 | ☑ | 1 | Telabis opacella Casey, 1907 | 5 |
| 217 | ☐ | 1 | Telabis punctulata LeConte, 1866 | 3 AZ |
| 218 | ☐ | 1 | Telabis serrata (LeConte), 1866 | 3 4 BC ME AZ UT NV |
| 219 | ☐ | 1 | Telabis sodalis Horn, 1870 | 3 4 AZ |
| 220 | ☐ | 1 | Triorophus laevis LeConte, 1851 | 3 4 AZ NV ME UT BC |
| 221 | ☐ | 1 | Triorophus rugiceps LeConte, 1851 | 2 3 7 8 6 5 NV |
| 222 | ☐ | 1 | Triphalopsis californicus Doyen, 1982 | 4 BC |
| **Pimeliinae Epitragini** | | | | |
| 223 | ☐ | 1 | Bothrotes plumbeaus tenebriosus Casey, 1907 | 5 AZ |
| 224 | ☐ | 1 | Metopoloba pruinosa pruinosa (Horn), 1870 | 3 4 AZ NV ME BC |
| 225 | ☐ | 1 | Polemiotus submetallicus (LeConte), 1854 | 4 AZ ME |
| **Pimeliinae Anepsiini** | | | | |
| 226 | ☐ | 1 | Anchomma costatum LeConte, 1858 | 3 5 6 7 NV |
| 227 | ☐ | 1 | Anepsius delicatulus LeConte, 1851 | 8 5 7 2 3 4 BC AZ UT NV |
| 228 | ☑ | 1 | Batuliodes obesus Doyen, 1987 | 3 4 |
| 229 | ☐ | 1 | Batuliodes rotundicollis (LeConte), 1851 | 3 4 BC AZ |
| 230 | ☐ | 1 | Batuliodes spatulatus Doyen, 1987 | 3 4 BC AZ |
| 231 | ☐ | 1 | Batuliodes wasbaueri Doyen, 1987 | 4 BC |
| 232 | ☐ | 1 | Batuliomorpha comatus Doyen, 1987 | 3 BC |
| 233 | ☑ | 1 | Batuliomorpha imperialis Doyen, 1987 | 4 |
| 234 | ☐ | 1 | Batulius setosus LeConte, 1851 | 3 4 BC AZ |
| **Pimeliinae Vacronini** | | | | |
| 235 | ☐ | 1 | Alaephus gracilis Fall, 1905 | 8 5 3 AZ |
| 236 | ☑ | 1 | Alaephus longicornis Casey, 1924 | 5 |
| 237 | ☐ | 1 | Alaephus macilentus Casey, 1891 | 3 ME NM AZ |
| 238 | ☑ | 1 | Alaephus maderensis Casey, 1924 | 5 |
| 239 | ☐ | 1 | Alaephus pallidus Horn, 1870 | 7 6 2 UT |
| 240 | ☐ | 1 | Alaephus puberulus Fall, 1907 | 5 UT |
| 241 | ☐ | 1 | Eupsophulus castaneus Horn, 1870 | 3 4 ME BC AZ |
| **Pimeliinae Cnemodini** | | | | |
| 242 | ☐ | 1 | Cnemodinus testaceus Horn, 1870 | 3 4 AZ |
| **Lagriinae Lagriini** | | | | |
| 243 | ☑ | 1 | Statira dumalis Parsons,1973 | 4 |
| 244 | ☐ | 1 | Statira latitator Parsons,1973 | 4 BC |
| 245 | ☐ | 1 | Statira pluripunctata Horn, 1888 | 4 AZ NM TX ME |
| **Lagriinae Goniaderini** | | | | |
| 246 | ☑ | 0 | Eschatoporis n.sp. Aalbu m.s. | 9 |
| 247 | ☑ | 1 | Eschatoporis nunenmacheri Blaisdell, 1906 | 8 |
| **Lagriinae Laenini** | | | | |
| 248 | ☑ | 1 | Eschatomoxys andrewsi Aalbu & Thomas, 2007 | 4 |
| 249 | ☐ | 1 | Eschatomoxys wagneri Blaisdell, 1935 | 3 4 AZ UT |
| **Phrenapatinae Penetini** | | | | |
| 250 | ☐ | 1 | Clamoris americana (Horn), 1874 | 9 4 OR |
| **Diaperinae Phaleriini** | | | | |
| 251 | ☐ | 1 | Phaleria debilis LeConte, 1866 | 4 ME |
| 252 | ☐ | 1 | Phaleria rotundata LeConte,1851 | 5 8 BC |
| 253 | ☐ | 1 | Phaleromela globosa (LeConte), 1857 | 8 9 CA OR WA |
| 254 | ☐ | 1 | Phaleromela humeralis (Laporte), 1840 | 3 ASIA |
| 255 | ☐ | 1 | Phaleromela prohumeralis Triplehorn, 1961 | U OR |
| 256 | ☐ | 1 | Phaleromela variegata Triplehorn, 1961 | 9 4 CA OR WA |
| **Diaperinae Diaperini** | | | | |
| 257 | ☐ | 1 | Alphitophagus bifasciatus (Say), 1824 | C |
| 258 | ☐ | 1 | Cynaeus angustus (LeConte), 1851 | 5 AZ UT ME |
| 259 | ☐ | 1 | Cynaeus depressus Horn, 1870 | 5 AZ BC |
| 260 | ☑ | 1 | Diaperis californica Blaisdell, 1929 | 6 |
| 261 | ☑ | 1 | Pentaphyllus californicus Horn, 1870 | 6 |
| 262 | ☐ | 1 | Platydema americanum Laporte & Brulle, 1831 | 6 AZ ID CA NM TX UT WA + |
| 263 | ☑ | 1 | Platydema neglectum Triplehorn, 1965 | 1 6 5 2 |
| 264 | ☐ | 1 | Platydema oregonense LeConte, 1857 | 5 6 7 9 CA OR WA |
| 265 | ☐ | 1 | Sitophagus hololeptoides Laporte, 1840 | C |
| **Diaperinae Crypticini** | | | | |
| 266 | ☐ | 1 | Gondwanocrypticus platensis (Fairmaire), 1883 | C 5 SA |
| **Diaperinae Myrmechixenini** | | | | |
| 267 | ☐ | 1 | Myrmechixenis lathridioides Crotch, 1873 | 6 8 TX + |
| **Diaperinae Hypophloeini** | | | | |
| 268 | ☐ | 1 | Corticeus hatchi Boddy, 1957 | 9 OR |
| 269 | ☐ | 1 | Corticeus opaculus (LeConte), 1878 | 8 5 AZ |
| 270 | ☐ | 1 | Corticeus praetermissus (Fall), 1926 | 1 2 4 5 6 7 8 9 AZ BC NM UT NV ID OR WA CA + |
| 271 | ☐ | 1 | Corticeus strublei Blaisdell, 1934 | 3 6 9 WA ID UT AZ NM + |
| 272 | ☐ | 1 | Corticeus substriatus (LeConte), 1852 | 1 2 3 5 6 7 8 9 ME AZ NM UT NV ID WA OR CA + |
| 273 | ☐ | 1 | Corticeus tenuis (LeConte), 1878 | 6 OR WA CA AZ ID + |
| **Tenebrioninae Bolitophagini** | | | | |
| 274 | ☐ | 1 | Eleates explanatus Casey, 1890 | 6 7 9 OR WA CA ID |
| 275 | ☐ | 1 | Eleates occidentalis Casey. 1886 | 6 8 WA |
| 276 | ☐ | 1 | Megeleates sequoiarum Casey,1895 | 9 6 7 5 3 BC OR |
| **Tenebrioninae Opatrini** | | | | |
| 277 | ☐ | 1 | Blapstinus brevicollis LeConte, 1851 | 2 3 4 5 6 7 8 AZ |
| 278 | ☐ | 1 | Blapstinus castaneus Casey, 1890 | 5 AZ |
| 279 | ☐ | 3 | Blapstinus coronadensis Blaisdell, 1892 | 5 |
| 280 | ☐ | 1 | Blapstinus dilatatus LeConte, 1851 | 2 3 4 5 6 7 8 AZ NV UT |
| 281 | ☐ | 1 | Blapstinus discolor Horn, 1870 | 9 8 7 6 5 4 3 2 1 NV OI ID UT WA CA |
| 282 | ☐ | 1 | Blapstinus histricus Casey, 1890 | 4 5 7 8 AZ NV |
| 283 | ☑ | 1 | Blapstinus lecontei Mulsant & Rey, 1859 | 5 |
| 284 | ☐ | 1 | Blapstinus pimalis Casey, 1885 | 5 8 AZ NM TX CO UT NV |
| 285 | ☐ | 1 | Blapstinus pulverulentus Mannerheim, 1843 | 9 OR WA |
| 286 | ☐ | 1 | Blapstinus substriatus Champion, 1885 | 1 9 6 AR NV NM TX C UT WY ID OR WA MT CA |
| 287 | ☐ | 1 | Blapstinus sulcatus LeConte, 1851 | 2 3 4 5 6 7 8 AZ NV |
| 288 | ☐ | 1 | Blapstinus vandykei Blaisdell, 1942 | 2 3 4 5 AZ |
| 289 | ☐ | 1 | Cheirodes californica (Horn), 1870 | 2 3 4 7 AZ NV |
| 290 | ☐ | 1 | Conibiosoma elongatum Horn, 1870 | 3 5 7 4 |
| 291 | ☐ | 0 | Conibius n.sp. | 7 OR |
| 292 | ☐ | 1 | Conibius seriatus LeConte, 1851 | 3 4 5 7 8 BC |
| 293 | ☐ | 1 | Gonocephalum sp. | 5 OW |
| 294 | ☐ | 1 | Mecysmus angustus (LeConte), 1851 | 3 4 5 8 BC |
| 295 | ☐ | 1 | Mecysmus tenuis Casey,1890 | 5 BC |
| 296 | ☐ | 1 | Nocibiotes crassipes (Casey), 1890 | 4 BC |
| 297 | ☐ | 1 | Nocibiotes granulatus (LeConte), 1851 | 3 4 AZ |

**Figure 1.** Continue.

## California Tenebrionidae (January 2014)

| # | Endemic CA | Status group | Species | Distribution |
|---|---|---|---|---|
| 298 | ☐ | 1 | Notibius laticeps Casey, 1890 | 4 AZ BC |
| 299 | ☐ | 1 | Notibius puberulus LeConte, 1851 | 3 4 AZ |
| 300 | ☐ | 1 | Notibius puncticollis LeConte, 1851 | 7 5 3 NV |
| 301 | ☐ | 1 | Opatroides punctulatus Brullé, 1832 | 7 OW |
| 302 | ☐ | 1 | Tonibius sulcatus LeConte, 1851 | 3 5 BC |
| 303 | ☐ | 1 | Trichoton sordidum (LeConte), 1851 | 4 AZ BC ME NM |
| 304 | ☐ | 1 | Ulus crassus LeConte, 1851 | 8 5 7 BC ME ZA NM T) |
| **Tenebrioninae Amphidorini** | | | | |
| 305 | ☑ | 1 | Eleodes (Blapylis) aristatus Somerby 1977 | 2 |
| 306 | ☑ | 1 | Eleodes (Blapylis) bishopensis Somerby & Doyen 1976 | 5 |
| 307 | ☐ | 1 | Eleodes (Blapylis) blanchardii Blaisdell 1909 | 5 6 AZ |
| 308 | ☐ | 1 | Eleodes (Blapylis) brunnipes Casey 1890 | 6 9 AZ NM CO UT NV OR WA ID WY |
| 309 | ☐ | 1 | Eleodes (Blapylis) caseyi Blaisdell 1909 | 2 5 NV |
| 310 | ☑ | 1 | Eleodes (Blapylis) clavicornis Eschscholtz 1833 | 5 8 |
| 311 | ☑ | 1 | Eleodes (Blapylis) consobrinus LeConte 1851 | 5 6 8 |
| 312 | ☑ | 1 | Eleodes (Blapylis) cooperi Somerby & Doyen 1976 | 6 |
| 313 | ☐ | 1 | Eleodes (Blapylis) cordatus Eschscholtz 1863 | 9 6 8 5 OR |
| 314 | ☑ | 1 | Eleodes (Blapylis) fuchsii Blaisdell 1909 | 5 8 |
| 315 | ☐ | 1 | Eleodes (Blapylis) hoppingi Blaisdell 1909 | 6 2 NV AR |
| 316 | ☑ | 1 | Eleodes (Blapylis) hornii Blaisdell 1909 | 6 2 1 |
| 317 | ☑ | 1 | Eleodes (Blapylis) incultus LeConte 1861 | 5 |
| 318 | ☑ | 1 | Eleodes (Blapylis) kaweanus Blaisdell 1933 | 6 |
| 319 | ☑ | 1 | Eleodes (Blapylis) lariversi Somerby & Doyen 1976 | 6 |
| 320 | ☑ | 1 | Eleodes (Blapylis) littoralis Eschscholtz 1831 | 5 6 7 8 |
| 321 | ☐ | 1 | Eleodes (Blapylis) neotomae Blaisdell 1909 | 5 5 BC |
| 322 | ☐ | 1 | Eleodes (Blapylis) nigropilosa (LeConte) 1851 | 5 8 BC |
| 323 | ☑ | 1 | Eleodes (Blapylis) panamintensis Somerby 1977 | 3 |
| 324 | ☑ | 1 | Eleodes (Blapylis) parvicollis Eschscholtz 1829 | 6 |
| 325 | ☐ | 1 | Eleodes (Blapylis) pimelioides Mannerheim 1843 | 1 3 5 8 CA AZ CO ID OR UT WA WY |
| 326 | ☐ | 1 | Eleodes (Blapylis) propinquus Blaisdell 1918 | 1 OR |
| 327 | ☑ | 1 | Eleodes (Blapylis) scabripennis LeConte 1859 | 5 6 |
| 328 | ☑ | 1 | Eleodes (Blapylis) scabriventris Blaisdell 1933 | 6 7 8 |
| 329 | ☐ | 1 | Eleodes (Blapylis) scabrosus Eschscholtz 1833 | 8 9 OR WA |
| 330 | ☑ | 1 | Eleodes (Blapylis) schlingeri Somerby & Doyen 1976 | 6 |
| 331 | ☑ | 1 | Eleodes (Blapylis) spilmani Somerby & Doyen 1976 | 9 |
| 332 | ☑ | 1 | Eleodes (Blapylis) subtestitus Blaisdell 1939 | 5 |
| 333 | ☐ | 1 | Eleodes (Blapylis) tenebrosus (Horn) 1870 | 1 2 6 NV UT OR ID |
| 334 | ☐ | 1 | Eleodes (Blapylis) versatilis Blaisdell 1921 | 9 OR |
| 335 | ☐ | 1 | Eleodes (Blapylis) volcanensis Somerby 1977 | 9 OR |
| 336 | ☑ | 1 | Eleodes (Caverneleodes) microps Aalbu et al., 2012 | 2 |
| 337 | ☐ | 1 | Eleodes (Cratidus) osculans (LeConte) 1851 | 5 8 BC |
| 338 | ☑ | 1 | Eleodes (Discogenia) marginatus Eschscholtz 1833 | 6 5 8 |
| 339 | ☐ | 1 | Eleodes (Discogenia) scabriculus LeConte 1858 | 6 7 OR NV |
| 340 | ☐ | 1 | Eleodes (Eleodes) acuticaudus LeConte 1851 | 8 5 BC |
| 341 | ☐ | 1 | Eleodes (Eleodes) armatus LeConte 1851 | 7 8 2 3 4 5 AZ NV BC ME BC |
| 342 | ☐ | 1 | Eleodes (Eleodes) dentipes Eschscholtz 1833 | 9 8 7 6 1 5 OR |
| 343 | ☐ | 1 | Eleodes (Eleodes) gracilis LeConte 1858 | 5 3 8 2 4 NV AZ NM T) UT CO |
| 344 | ☐ | 1 | Eleodes (Eleodes) grandicollis Mannerheim 1843 | 8 5 4 BC |
| 345 | ☐ | 1 | Eleodes (Eleodes) hispilabris Say 1824 | 9 8 7 AR CA NM TX U WA OR NV CO ID + |
| 346 | ☐ | 1 | Eleodes (Eleodes) moestus Blaisdell 1921 | 5 BC |
| 347 | ☐ | 1 | Eleodes (Eleodes) obscurus Say 1824 | 1 2 AZ ME CO ID NV OR TX UT WA + |
| 348 | ☐ | 1 | Eleodes (Eleodes) subcylindricus Casey 1890 | 2 3 4 NV |
| 349 | ☑ | 1 | Eleodes (Litheleodes) corvinus Blaisdell 1921 | 1 |
| 350 | ☐ | 1 | Eleodes (Litheleodes) granulatus LeConte 1857 | 9 OR |
| 351 | ☐ | 1 | Eleodes (Litheleodes) letcheri Blaisdell 1909 | 1 2 NV ID |
| 352 | ☑ | 1 | Eleodes (Litheleodes) papillosus Blaisdell 1917 | 9 |
| 353 | ☐ | 1 | Eleodes (Litheleodes) vandykei Blaisdell 1909 | 1 9 OR WA NV AR |
| 354 | ☐ | 1 | Eleodes (Melaneleodes) carbonarius (Say) 1823 | 3 4 5 ME AR UT NV BC TX NM ID |
| 355 | ☐ | 1 | Eleodes (Melaneleodes) humeralis LeConte 1857 | 9 CA WA OR NV CO U |
| 356 | ☑ | 1 | Eleodes (Melaneleodes) quadricollis Eschscholtz 1833 | 8 |
| 357 | ☐ | 1 | Eleodes (Melaneleodes) rileyi Casey 1891 | 2 NV AZ UT NM ID OR |
| 358 | ☑ | 1 | Eleodes (Metablapylis) aalbui Triplehorn 2007 | 2 |
| 359 | ☐ | 1 | Eleodes (Metablapylis) californicus Blaisdell 1929 | 3 5 AZ |
| 360 | ☐ | 1 | Eleodes (Metablapylis) dissimilis Blaisdell 1909 | 3 ME NV AZ |
| 361 | ☑ | 0 | Eleodes (Metablapylis) n.sp. | 5 |
| 362 | ☐ | 1 | Eleodes (Metablapylis) nigrinus LeConte 1858 | 1 2 CA AZ CO ID MT NV NM OR UT WA WY |
| 363 | ☐ | 1 | Eleodes (Pseudeleodes) granosus LeConte 1866 | 2 3 4 NV ID |
| 364 | ☐ | 1 | Eleodes (Pseudeleodes) inyoensis Tanner 1961 | 2 NV |
| 365 | ☑ | 1 | Eleodes (Steneleodes) gigantea Mannerheim 1843 | 6 7 8 9 |
| 366 | ☐ | 1 | Eleodes (Tricheleodes) hirsutus LeConte 1861 | 2 3 NV |
| 367 | ☐ | 1 | Eleodes (Tricheleodes) obesus Doyen 1985 | 9 1 OR |
| 368 | ☐ | 1 | Eleodes (Tricheleodes) pilosus Horn, 1870 | 1 2 3 9 NV UT |
| 369 | ☑ | 1 | Eleodimorpha bolcan Blaisdell, 1909 | 5 |
| 370 | ☐ | 1 | Embaphion depressum LeConte, 1858 | 4 3 AZ |
| 371 | ☐ | 1 | Embaphion elongatum Horn, 1870 | 2 NV |
| 372 | ☐ | 0 | Lariversius n.sp. | 3 NV |
| 373 | ☐ | 1 | Lariversius tibialis Blaisdell, 1947 | 2 NV |
| 374 | ☐ | 1 | Neobaphion elongatum Blaisdell, 1933 | 2 NV |
| 375 | ☐ | 1 | Trogloderus costatus LeConte, 1879 | 3 2 NV |
| 376 | ☐ | 1 | Trogloderus costatus mayhewi Papp, 1961 | 3 NV |
| 377 | ☑ | 2 | Trogloderus costatus pappi Kulzer, 1960 | 3 |
| **Tenebrioninae Cerenopini** | | | | |
| 378 | ☐ | 1 | Cerenopus concolor LeConte, 1851 | 3 4 ME AZ |
| **Tenebrioninae Eulabini** | | | | |
| 379 | ☑ | 1 | Apsena barbarae Blaisdell, 1932 | 5 |
| 380 | ☑ | 1 | Apsena crassicornis (Casey), 1890 | 5 |
| 381 | ☑ | 1 | Apsena grossa (LeConte), 1866 | 5 |
| 382 | ☑ | 1 | Apsena laticornis (Casey), 1891 | 5 |
| 383 | ☑ | 1 | Apsena leachi Blaisdell, 1932 | 6 |
| 384 | ☐ | 1 | Apsena pubescens (LeConte),1851 | 5 BC |
| 385 | ☑ | 1 | Apsena rufipes rufipes (Eschscholtz), 1829 | 5 6 7 8 |
| 386 | ☑ | 1 | Apsena rufipes simplex Blaisdell, 1932 | 8 |
| 387 | ☐ | 1 | Argoporis apicalis californica Berry, 1851 | 4 AZ ME |
| 388 | ☐ | 1 | Argoporis bicolor (LeConte), 1851 | 3 4 AZ |
| 389 | ☐ | 1 | Epantius obscurus LeConte, 1851 | 5 8 9 BC |
| 390 | ☑ | 1 | Eulabis bicarinata Eshscholtz, 1829 | 8 9 6 7 |
| **Tenebrioninae Ulomini** | | | | |
| 391 | ☐ | 1 | Uloma longula LeConte, 1861 | 5 9 6 7 OR |
| **Tenebrioninae Helopini** | | | | |
| 392 | ☑ | 1 | Helops angustus LeConte, 1859 | 5 |
| 393 | ☐ | 1 | Helops attenuatus (LeConte),1851 | 3 4 NV AZ |
| 394 | ☑ | 1 | Helops bachei LeConte, 1861 | 5 |
| 395 | ☐ | 1 | Helops blaisdelli Casey, 1891 | 5 BC |
| 396 | ☑ | 1 | Helops californicus Mannerheim, 1843 | 9 8 6 7 |
| 397 | ☐ | 1 | Helops confluens (Casey), 1924 | 5 BC |
| 398 | ☑ | 1 | Helops discipula Casey, 1891 | 3 4 5 |

**Figure 1.** Continue.

## California Tenebrionidae (January 2014)

| # | Endemic CA | Status group | Species | Distribution |
|---|---|---|---|---|
| 399 | ☐ | 1 | Helops edwardsi Horn, 1870 | 3 5 OR |
| 400 | ☑ | 1 | Helops fresnoensis Blaisdell, 1931 | 7 |
| 401 | ☐ | 1 | Helops laetus LeConte, 1857 | 8 WA |
| 402 | ☑ | 1 | Helops obtusangula Blaisdell, 1921 | 5 8 |
| 403 | ☑ | 1 | Helops opacus LeConte, 1859 | 1 9 6 5 7 |
| 404 | ☑ | 1 | Helops punctipennis LeConte, 1866 | 6 |
| 405 | ☐ | 1 | Helops rufipes (LeConte), 1851 | 5 BC |
| 406 | ☑ | 1 | Helops rugicollis LeConte, 1866 | 5 |
| 407 | ☑ | 1 | Helops rugulosus LeConte, 1866 | 5 7 9 6 |
| 408 | ☑ | 1 | Helops simulator Blaisdell, 1921 | 6 |
| 409 | ☐ | 1 | Helops spretus Horn, 1880 | 2 NV |
| 410 | ☑ | 1 | Helops stenotrichoides Blaisdell, 1895 | 6 8 |
| 411 | ☑ | 1 | Helops strigicollis Horn, 1885 | 3 4 |
| 412 | ☐ | 1 | Helops tumescens LeConte, 1866 | 3 4 AZ |
| **Tenebrioninae Triboliini** | | | | |
| 413 | ☐ | 1 | Gnathocerus cornutus (Fabricius) 1801 | C |
| 414 | ☐ | 1 | Gnathocerus maxillosus (Fabricius) 1801 | C |
| 415 | ☐ | 1 | Latheticus oryzae Chittenden, 1880 | C |
| 416 | ☐ | 1 | Latheticus prosopis Chittenden, 1904 | C |
| 417 | ☐ | 1 | Lyphia tetraphylla (Fairmaire,1856) | C |
| 418 | ☐ | 1 | Mycotrogus angustus Horn, 1870 | 4 AZ |
| 419 | ☐ | 1 | Mycotrogus piceus Horn, 1870 | 4 BC |
| 420 | ☐ | 1 | Palorus ratzeburgii (Wissnmann), 1848 | C |
| 421 | ☐ | 1 | Palorus subdepressus Wollaston, 1864 | C |
| 422 | ☐ | 1 | Tharsus seditiosus LeConte, 1866 | C |
| 423 | ☐ | 1 | Tribolium audax Uyttenboogsart, 1933 | C |
| 424 | ☐ | 1 | Tribolium brevicorne (LeConte), 1859 | C |
| 425 | ☐ | 1 | Tribolium castaneum Herbst, 1797 | C |
| 426 | ☐ | 1 | Tribolium confusum Jacquelin du Val, 1868 | C |
| 427 | ☐ | 1 | Tribolium destructor Uyttenboogsart, 1933 | C |
| 428 | ☐ | 1 | Tribolium madens (Charpentier), 1825 | C |
| **Tenebrioninae Apocryphini** | | | | |
| 429 | ☑ | 1 | Apocrypha anthicoides Eschscholtz, 1831 | 9 8 5 7 6 |
| 430 | ☐ | 1 | Apocrypha clivinoides Horn, 1870 | 2 NV |
| 431 | ☑ | 1 | Apocrypha setosa Doyen & Kityama, 1980 | 8 |
| **Tenebrioninae Alphitobiini** | | | | |
| 432 | ☐ | 1 | Alphitobius diaperinus (Panzer), 1797 | C |
| 433 | ☐ | 1 | Alphitobius laevigatus Fabricius, 1781 | C |
| 434 | ☐ | 1 | Metaclisa marginalis Horn, 1870 | 5 6 8 1 7 9 BC |
| 435 | ☐ | 1 | Bius estriatus LeConte, 1851 | 7 8 2 NV BC |
| 436 | ☑ | 0 | Neatus n.sp. | 6 8 |
| 437 | ☐ | 1 | Tenebrio molitor Linnaeus, 1758 | C |
| 438 | ☐ | 1 | Tenebrio obscurus Fabricius,1792 | C |
| **Tenebrioninae Centronopini** | | | | |
| 439 | ☐ | 1 | Scotobaenus parallelus LeConte,1859 | 9 6 OR |
| 440 | ☑ | 1 | Scotobaenus punctatus (Blaisdell), 1933 | 6 |
| 441 | ☑ | 1 | Scotobaenus simplex (Blaisdell), 1937 | 6 |
| 442 | ☑ | 1 | Scotobaenus wagneri (Blaisdell), 1933 | 6 |
| **Alleculinae Alleculini** | | | | |
| 443 | ☐ | 1 | Hymenorus apacheanus Casey, 1891 | 3 4 AZ |
| 444 | ☑ | 1 | Hymenorus discrepans Casey, 1891 | 5 |
| 445 | ☐ | 1 | Hymenorus exiguus Casey, 1891 | 4 AZ |
| 446 | ☑ | 1 | Hymenorus fusculus Casey, 1891 | 5 6 |
| 447 | ☑ | 1 | Hymenorus fusicornis Casey, 1891 | 5 |
| 448 | ☑ | 1 | Hymenorus infuscatus Casey, 1891 | 5 |
| 449 | ☑ | 1 | Hymenorus inquilinus Casey, 1891 | 6 |
| 450 | ☑ | 1 | Hymenorus irritus Fall, 1931 | 5 8 |
| 451 | ☑ | 1 | Hymenorus jacobinus Fall, 1931 | U |
| 452 | ☑ | 1 | Hymenorus montivagus Fall, 1931 | U |
| 453 | ☑ | 1 | Hymenorus parvus Fall, 1931 | 3 |
| 454 | ☐ | 1 | Hymenorus protibialis Fall, 1931 | 3 4 AZ |
| 455 | ☐ | 1 | Hymenorus punctatissimus LeConte, 1866 | 3 4 NM TX UT AZ |
| 456 | ☑ | 1 | Hymenorus punctulatus (LeConte), 1859 | 6 |
| 457 | ☑ | 1 | Hymenorus rufohumeralis Campbell, 1982 | 8 |
| 458 | ☐ | 1 | Hymenorus sinuatus Fall, 1931 | 9 OR |
| 459 | ☐ | 1 | Hymenorus thoracicus Fall, 1931 | 4 AZ |
| 460 | ☑ | 1 | Hymenorus ulomoides Fall, 1931 | U |
| 461 | ☑ | 1 | Hymenorus uniseriatus Casey, 1891 | U |
| 462 | ☐ | 1 | Isomira comstocki Papp, 1956 | 7 6 9 8 5 1 CA ME ID OR UT WA |
| 463 | ☑ | 1 | Isomira damnata Marshall, 1970 | 6 7 |
| 464 | ☑ | 1 | Isomira luscitiosa Casey, 1891 | 5 8 6 |
| 465 | ☑ | 1 | Isomira monticola Casey, 1891 | U |
| 466 | ☑ | 1 | Isomira variabilis (Horn),1875 | 8 9 6 5 |
| 467 | ☑ | 1 | Mycetochara marshalli Campbell, 1978 | 7 |
| 468 | ☐ | 1 | Mycetochara procera Casey, 1891 | 9 6 CA AZ ID OR WA |
| 469 | ☑ | 1 | Mycetochara pubipennis (LeConte), 1878 | 5 |
| 470 | ☑ | 1 | Pseudocistela opaca LeConte, 1859 | 9 8 6 5 3 |
| 471 | ☐ | 1 | Pseudocistela pacifica Hopping, 1933 | 9 CA OR WA |
| 472 | ☐ | 1 | Pseudocistela pinguis LeConte, 1866 | 5 WA CA OR |
| 473 | ☐ | 1 | Stenochidius cyanescens LeConte, 1859 | 9 8 6 OR ID |
| 474 | ☑ | 1 | Stenochidius gracilis LeConte, 1851 | 6 5 8 |
| 475 | ☑ | 1 | Stenochidius robustus Schaeffer, 1911 | 8 9 7 6 |
| **Stenochiinae Cnodalonini** | | | | |
| 476 | ☐ | 1 | Alobates pennsylvanicus (DeGeer), 1775 | 5 BC |
| 477 | ☑ | 1 | Cibdelis bachei LeConte, 1861 | 9 8 7 6 |
| 478 | ☑ | 1 | Cibdelis blaschkei Mannerheim, 1843 | 8 |
| 479 | ☐ | 1 | Coelocnemis californica Mannerheim, 1843 | 5 8 9 6 CA ME ID NV OR UT |
| 480 | ☑ | 1 | Coelocnemis lucia Doyen, 1973 | 8 |
| 481 | ☐ | 1 | Coelocnemis magna LeConte, 1851 | 5 8 9 6 2 AZ NM |
| 482 | ☐ | 1 | Coelocnemis punctata LeConte, 1855 | 1 2 3 NV UT AZ |
| 483 | ☐ | 1 | Coelocnemis rugulosa Doyen, 1973 | 1 OR |
| 484 | ☐ | 1 | Coelocnemis sulcata Casey, 1895 | 2 3 NV AZ UT |
| 485 | ☐ | 1 | Iphthiminus laevissimus (Casey), 1890 | 5 6 9 3 1 OR |
| 486 | ☐ | 1 | Iphthiminus serratus Mannerheim, 1843 | 1 9 6 5 AZ WY WA UT OR NM MT ID CO |

**Figure 1.** Continue.

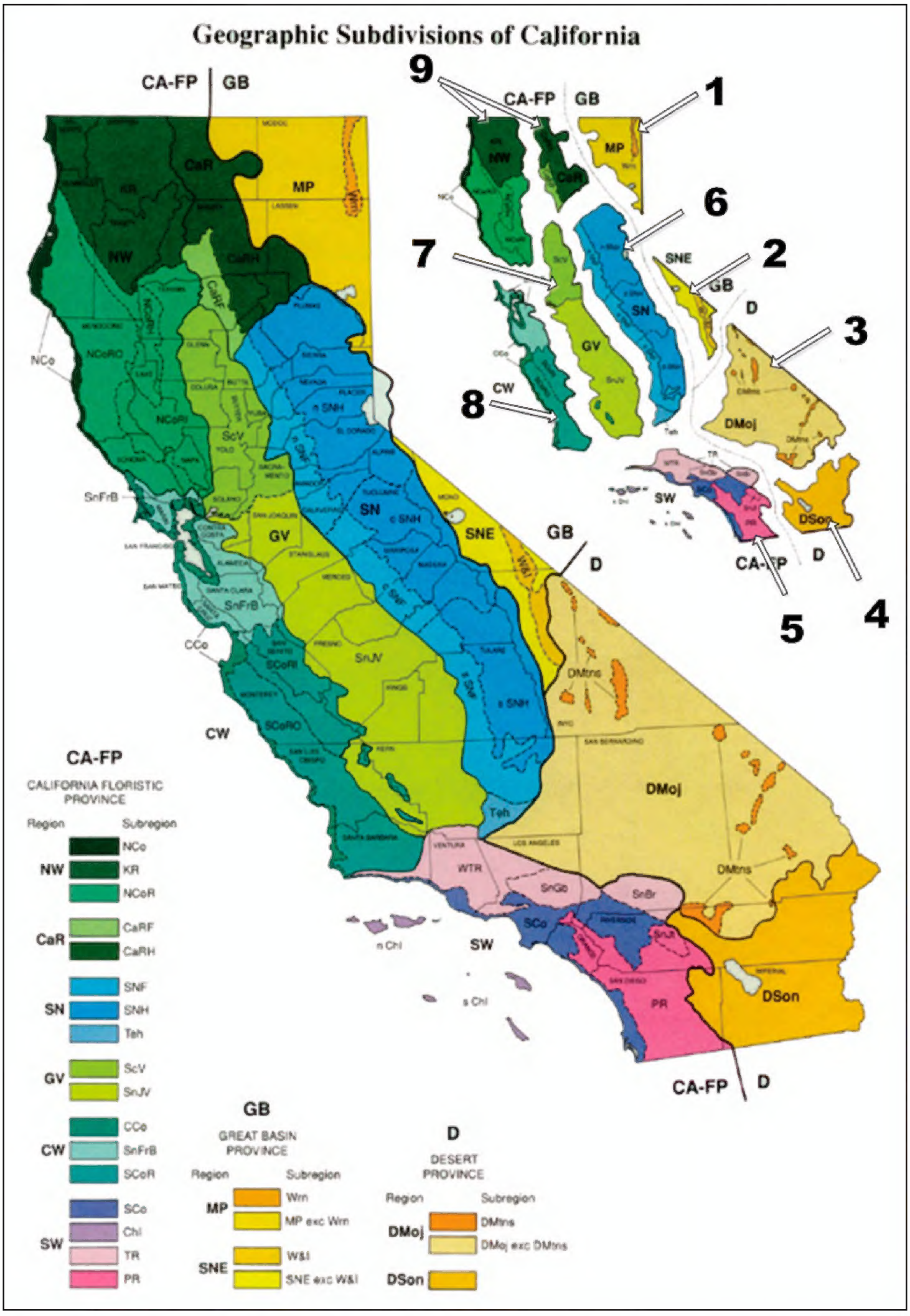


**Figure 2.** Geographic subdivisions of California from http://ucjeps.berkeley.edu/cguide.html#Map with Unit Boundaries with regions 1–9 outlined.

## Regional Endemic California Tenebrionidae (January 2014)

**REGION** **Species present, Percent endemic**

### 1: The Northern Great Basin Province — 29: 3.45%

including the Warner Mountains and Modoc Plateau

1 Eleodes (Litheleodes) corvinus Blaisdell 1921

### 2: The Southern Great Basin Province — 55: 9.09%

including the White and Inyo Mountains and intermountain valleys east of the Sierras Nevada's and White Mountains

1 Auchmobius sublaevis LeConte, 1851
2 Eleodes (Blapylis) aristatus Somerby 1977
3 Eleodes (Caverneleodes) microps Aalbu et al., 2012
4 Eleodes (Metablapylis) aalbui Triplehorn 2007
5 Oxygonodera n.sp.

### 3: The Mojave Desert — 112: 10.71%

and associated desert mountains

1 Araeoschizus lariversi Papp, 1981
2 Eleodes (Blapylis) panamintensis Somerby 1977
3 Hymenorus parvus Fall, 1931
4 Melanastus sterilis Casey,1907
5 Metoponium concors Casey,1907
6 Metoponium cylindricum Casey, 1890
7 Metoponium gravidum Casey,1907
8 Metoponium testaceum Casey,1907
9 Philolithus jaegeri (Papp), 1961
10 Philolithus opimus Casey, 1912
11 Trogloderus costatus pappi Kulzer, 1960
12 Typhleusechus chemehuevii Aalbu & Andrews, 1985

### 4: The Sonoran (Colorado) Desert — 113: 11.50%

and associated desert mountains

1 Araeoschizus andrewsi Papp, 1981
2 Araeoschizus hardyi Papp, 1981
3 Araeoschizus hystrix Papp, 1981
4 Batuliornorpha imperialis Doyen, 1987
5 Eschatomoxys andrewsi Aalbu & Thomas, 2007
6 Lepidocnemeplatia n.sp.
7 Metoponium dubium Casey, 1884
8 Metoponium egregium Casey,1907
9 Metoponium integer Casey,1907
10 Metoponium molestum Casey,1907
11 Statira dumalis Parsons,1973
12 Stenomorpha (Trichiasida) hirsuta (LeConte), 1851
13 Telabis fidelis Casey, 1907

### 5: The South Coast — 170: 24.12%

including the Transverse and Peninsular Ranges and Channel Islands

1 Alaephus longicornis Casey, 1924
2 Alaephus maderensis Casey, 1924
3 Alaudes alternata Fall, 1928
4 Apsena barbarae Blaisdell, 1932
5 Apsena crassicornis (Casey), 1890
6 Apsena grossa (LeConte), 1866
7 Apsena laticornis (Casey), 1891
8 Araeoschizus doyeni Papp, 1981
9 Araeoschizus exiguus Casey, 1907
10 Auchmobius angelicus Blaisdell. 1934
11 Auchmobius sanfordi Blaisdell. 1934
12 Blapstinus lecontei Mulsant & Rey, 1859
13 Coelus pacificus Fall, 1897
14 Coniontis catalinae Casey, 1908
15 Coniontis globulina Casey, 1895
16 Coniontis pallidicornis Casey, 1890
17 Coniontis remnans Pierce, 1945
18 Coniontis santarosae Blaisdell, 1921
19 Coniontis vandykei Blaisdell, 1921
20 Eleodes (Blapylis) bishopensis Somerby & Doyen 1976
21 Eleodes (Blapylis) incultus LeConte 1861
22 Eleodes (Blapylis) subtestitus Blaisdell 1939
23 Eleodes (Metablapylis) n.sp.
24 Eleodimorpha bolcan Blaisdell, 1909
25 Eusattus politus Horn, 1883
26 Eusattus robustus LeConte,1866
27 Helops angustus LeConte, 1859
28 Helops bachei LeConte, 1861
29 Helops rugicollis LeConte, 1866
30 Hylocrinus piceus Casey, 1890
31 Hymenorus discrepans Casey, 1891
32 Hymenorus fusicornis Casey, 1891
33 Hymenorus infuscatus Casey, 1891
34 Melanastus exoletus Casey,1907
35 Melanastus thoracicus (Casey), 1907
36 Metoponium edax Casey,1907
37 Metoponium insulare Casey,1907
38 Metoponium probatum Casey,1907
39 Metoponium tersum Casey,1907
40 Mycetochara pubipennis (LeConte), 1878
41 Stenomorpha (Trichiasida) luctata (Horn), 1870
42 Telabis opacella Casey, 1907

### 6: The Sierra Nevada Mountains — 100: 16.00%

1 Apsena leachi Blaisdell, 1932
2 Diaperis californica Blaisdell, 1929
3 Eleodes (Blapylis) cooperi Somerby & Doyen 1976
4 Eleodes (Blapylis) kaweanus Blaisdell 1933
5 Eleodes (Blapylis) lariversi Somerby & Doyen 1976
6 Eleodes (Blapylis) parvicollis Eschscholtz 1829
7 Eleodes (Blapylis) schlingeri Somerby & Doyen 1976
8 Helops punctipennis LeConte, 1866
9 Helops simulator Blaisdell, 1921
10 Hymenorus inquilinus Casey, 1891
11 Hymenorus punctulatus (LeConte), 1859
12 Melanastus vergrandis Casey,1907
13 Pentaphyllus californicus Horn, 1870
14 Scotobaenus punctatus (Blaisdell), 1933
15 Scotobaenus simplex (Blaisdell), 1937
16 Scotobaenus wagneri (Blaisdell), 1933

### 7: The Central Valley — 76: 6.58%

1 Coelus gracilis Blaisdell, 1939
2 Helops fresnoensis Blaisdell, 1931
3 Metoponium gulosum Casey,1907
4 Mycetochara marshalli Campbell, 1978
5 Stenomorpha (Stenomorpha) mckittricki (Pierce), 1944

### 8: The Central Coast — 110: 18.18%

including the San Francisco Bay area and Coast Ranges

1 Apocrypha setosa Doyen & Kityama, 1980
2 Apsena rufipes simplex Blaisdell, 1932
3 Araeoschizus sulcicollis disjunctus Papp, 1981
4 Auchmobius parvicollis Blaisdell. 1934
5 Auchmobius picipes Blaisdell. 1934
6 Auchmobius slevini Blaisdell. 1934
7 Auchmobius subboreus Blaisdell. 1934
8 Cibdelis blaschkei Mannerheim, 1843
9 Coelocnemis lucia Doyen, 1973
10 Coniontis costulata Casey, 1908
11 Coniontis farallonica Casey, 1895
12 Coniontis hoppingi Blaisdell, 1918
13 Coniontis lata LeConte, 1866
14 Coniontis timida Casey, 1908
15 Coniontis viatica Eschscholtz, 1929
16 Eleodes (Melaneleodes) quadricollis Eschscholtz 1833
17 Eschatoporis nunenmacheri Blaisdell, 1906
18 Hymenorus rufohumeralis Campbell, 1982
19 Melanastus lucidulus Casey,1907
20 Melanastus otiosus Casey,1907

### 9: The Northern Coast — 73: 5.48%

including the Cascade and Klamath Ranges as well as the Northern Coast Ranges

1 Coniontis genitiva Casey, 1890
2 Eleodes (Blapylis) spilmani Somerby & Doyen 1976
3 Eleodes (Litheleodes) papillosus Blaisdell 1917
4 Eschatoporis n.sp. Aalbu m.s.

**Figure 3.** Regional Endemic California Tenebrionidae.

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